Filing Date: September 11, 2003

Title: ADAPTIVE PREFETCH OF I/O DATA BLOCKS

Assignee: Intel Corporation

# **REMARKS**

This responds to the Office Action mailed on June 17, 2005.

Claims 21, 25, 28, and 33 are amended, claims 1-20 were previously canceled; as a result, claims 21-40 are now pending in this application.

### Objections to the Claims

Claims 28-33 were objected to due to informalities. The Examiner objected to the form of a few verbs in claim 28. Applicant has made the correction as requested by the Examiner; accordingly, these objections are no longer appropriate and should be withdrawn.

## §102 Rejection of the Claims

Claims 21-24 and 26-32 were rejected under 35 USC § 102(b) as being anticipated by Macon, Jr. et al. (U.S. 5,600,817). It is of course fundamental that in order to sustain an anticipation rejection that each and every element of the rejected claims must be taught or suggested in the cited reference.

The Examiner has made two points with respect to the independent claims 21 and 28. First, the Examiner asserts that the Macon reference avoids prefetch of data as evidenced by the asserted processing path of A,B, I, J, and K. Second, the Examiner asserts that even assuming Macon performs prefetching in each case, the independent claims as drafted with the "at least one of' language does not ensure that no prefetching takes place so as to preclude the Macon teaching. Each of these points will now be discussed in turn in view of the amendments to claims 21 and 28.

First, Applicant would respectfully like to point out that FIG. 6 and the associated description within Macon does not agree with the Examiner's purported interpretation of Macon. Block I, in FIG. 6 of Macon, checks to see if data is available in the cache; if the data was in the cache, then the only way it could have been put in the cache in the first instance was if it had been prefetched during a previous iteration at block N. In other words, the data could not have magically appeared in the cache, it had to be prefetched during a previous iteration. So, Applicant respectfully disagrees with the Examiner's interpretation of the processing path A, B,

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I, J, and K because the transition from I to J could never have occurred unless the data was prefetched and in the cache; otherwise no hit occurs in I to transition to J. So, Macon does in fact always prefetch as Applicant has asserted and continues to assert.

To address the second point of the Examiner, Applicant has amended claims 21 and 28, such that prefetching does not occur with unfavorable success rates or when a subsequent read is unsuccessful. That is, the amended independent claims 21 and 28 now always include the processing to stop prefetching with unfavorable success rates or stop prefetching with unsuccessful subsequent reads. This processing limitation is completely lacking in the Macon reference.

Therefore, Applicant respectfully requests that the rejections with respect to Macon for independent claims 21 and 28 and their corresponding dependent claims be withdrawn and these claims be allowed.

# Allowable Subject Matter

Applicant acknowledges and appreciates the Examiner's indication that claims 34-40 are allowed.

Claims 25 and 33 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has rewritten claim 25 and 33 in independent format to include all the limitations of the independent claim from which they depend and any intermediate dependent claims from which they dependent. Therefore, amended claims 25 and 33 are now in condition for allowance.

#### AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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# Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Joseph Mehrle at 513-942-0224, or the undersigned attorney to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

RAYMOND S. TETRICK

By his Representatives,

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Date Opt. 19 2005

Ann M. McCrackin

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this \_\_\_19th\_\_\_ day of September 2005.

Name

**S**ignature